UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,892	07/31/2003	C. Bret Elzinga	6922.34	3057

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EXAMINER
HARRIS, CHANDA L

ART UNIT	PAPER NUMBER
3715	

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/632,892	ELZINGA ET AL.
	Examiner	Art Unit
	Chanda L. Harris	3715

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/31/03*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-70* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-70* is/are rejected.

7)☒ Claim(s) *17,19,22,32,57,68 and 69* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *10/15/03*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In Claim 7, It is unclear what Applicant means by "computer readable relating."

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 61-70 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims to computer programs (i.e., computer program product) per se are not statutory subject matter. On the other hand, a claim to a computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7,9, 11, 21, 23, 25, 27-29, 31, 33-34, 38-42, 47, 50-53, 56, 58-59, and 61-67

are rejected under 35 U.S.C. 102(b) as being anticipated by Parry et al. (US

6,077,085).

1.   [Claims 1,50, 56, 58,61,64]: Regarding Claims 1,50, 56, 58, 61, and 64, Parry

discloses designing dynamic content for presentation to the user, wherein concepts of

the educational content are graphically linked in a relational order in Col.3: 46-48:

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This is not performed with static pre-formulated lessons, but in
phrase-specific exercises that dynamically adapt with each
student response.
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Parry discloses selectively implementing the presentation of the educational content to

the user, wherein the presentation is automatically adapted to a characteristic of the

user. See Col.3: 2-5:

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If a student has mastered a concept her response will be quick
and accurate and the system will recognize this familiarity and
remove that concept from study until the next major review
session.
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Parry discloses iteratively implementing at least a portion of the presentation to the user

over an extended period of time to maintain the user's understanding of the educational

content. See Col.3: 51-56:

> If the student successfully assembles the phrase, the next time
> it is presented the phrase will be presented differently,
> perhaps divided into several more parts, or contain a higher
> number of "distractors," distracting false answer options, to
> provide a higher degree of difficulty at each iteration of the
> phrase.

Parry discloses a computer device (i.e., computer hardware system) having an output

device (i.e., visual display device). See Col.5: 63-Col.6: 17.

2.   [Claims 2,51,59,62]: Regarding Claims 2, 51, 59, and 62, Parry discloses

wherein the characteristic is a learning progress of the user (i.e., the student's speed

and accuracy of response to a prompt). See Col.2: 65-Col.3: 2:

> A systematic spaced review method gauges a student's long-term
> retention, understanding and familiarity with a concept by
> measuring, recording and monitoring the student's speed and
> accuracy of response to a prompt.

3.   [Claims 3,63]: Regarding Claims 3 and 63, Parry discloses wherein the step for

iteratively implementing at least a portion of the presentation to the user over an

extended period of time comprises a step for providing a systematic spaced review of

the educational content to the user based on the user's performance (i.e., student's

speed and accuracy of a response to a prompt). See Col.2: 65-Col.3: 2.

4.   [Claim 4]: Regarding Claim 4, Parry discloses wherein the systematic spaced

review is further based on dynamic parameters of a minimum delay (e.g., keep the

concept in active lessons until it is mastered) and a maximum delay (e.g., until the next

major review session). See Col.3: 2-8:

5.   [Claim 5]: Regarding Claim 5, Parry discloses wherein the user's performance

corresponds to at least one of (i) the user's accuracy and (ii) the users speed in

understanding the educational content. See Col.2: 65-Col.3: 2.

6.   [Claim 6]: Regarding Claim 6, Parry discloses wherein the systematic spaced

review transitions the user's understanding of the educational content from the user's

short-term memory to the user's long-term memory. See Col.15: 19-21 and Col.5: 22-

29:

> Thus, the review process is systematically spaced over time to
> ensure the item is retained beyond short-term memory.

> The present invention is referred to as the technology assisted
> learning (TAL) system. The TAL system may include classroom
> activities, print materials, practice activities, computer
> activities and simulation activities that are linked together to
> provide the student with the experiences and skills
> necessary to learn and understand new information, concepts or
> skills and retain them in long-term memory.

7.   [Claim 7]: Regarding Claim 7, Parry discloses wherein the step for designing

dynamic educational content for presentation to the user comprises a step for allowing

an instructional designer to quickly, dynamically and customizably create the

educational content by utilizing a design technique (e.g., templates) that automatically

produces computer readable relating to the educational content.   See Col.6: 21-26.

8.   [Claims 9,65]: Regarding Claims 9 and 65, Parry discloses wherein the step for

designing dynamic educational content for presentation to the user comprises linking

available components of the educational content based on specific properties (i.e.,

subject matter) of the available content.   See Col.6: 36-38.

9.   [Claims 11,52,66]: Regarding Claims 11,52, and 66, Parry discloses wherein the

step for linking available components of the educational content based on specific

properties comprises utilizing a user interface (i.e., template) for assembling educational

activities from the available components, wherein the user interface facilitates the

creation of dynamic, adaptive instruction. See Col.6: 21-26.

10.   [Claim 21]: Regarding Claim 21, Parry discloses wherein the step for designing

dynamic educational content for presentation to the user includes designing an

environment (e.g., via videodisc or audio recordings) that includes a look and feel that is

customized to a particular audience. See Col.3: 36-51.

11.   [Claim 23]: Regarding Claim 23, Parry discloses wherein the step for designing

dynamic educational content comprises automatically analyzing data to identify

relationships between components of the educational content. Col.6: 59-67.

12.   [Claim 25]: Regarding Claim 25, Parry discloses wherein the step for designing

dynamic educational content for presentation to the user does not require that the

designing be performed at the code level by a computer programmer (i.e., via template).

See Col.6: 27-46.

13.   [Claim 27]: Regarding Claim 27, Parry discloses automatically identifying the

current activity presented to the user; keeping track of the learning progress of the user;

and automatically determining which activity to present next to the user. See Col.3: 51-

56.

14.   [Claim 28]: Regarding Claim 28, Parry discloses wherein the step for selectively

implementing the presentation of the educational content to the user comprises

automatically evaluating activity branching conditions upon completion of an activity for

branches emanating from the completed activity.   See Col.18: 51-60.

15.   [Claim 29]: Regarding Claim 29, Parry discloses automatically monitoring the

educational progress of the user; if an educational lesson is not understood by the user,

performing at least one of: selectively repeating at least a portion of an adaptive path

related to the educational lesson; and presenting a related activity (i.e., additional study)

to assist the user in understanding the educational lesson; and if the educational lesson

is understood by the user, following another adaptive path that relates to a subsequent

lesson. See Col.3: 2-9.

16.   [Claim 31]: Regarding Claim 31, Parry discloses tracking the progress of the user

and generating a report relating to the user's progress (i.e., recording and reporting the

individual progress of each student). See Col.10: 58-63.

17.   [Claim 33]: Regarding Claim 33, Parry discloses evaluating the learning of the

educational content. See Col.3: 2-9.

18.   [Claim 34]: Regarding Claim 34, Parry discloses modifying the frequency for

presenting the educational content based on the learning of the educational content.

See Col.3: 2-9.

19.   [Claim 38]: Regarding Claim 38, Parry discloses a step for tracking information

corresponding to the user (i.e., recording and reporting the individual progress of each

student). See Col.10: 58-63.

20.   [Claim 39]: Regarding Claim 39, Parry discloses wherein the step of tracking

information includes a step for allowing a designer to determine the type (e.g., speed

and accuracy of a response to a prompt) of information that is to be tracked.   See

Col.2: 65-Col.3: 2.

21.   [Claim 40]: Regarding Claim 40, Parry discloses wherein the information tracked

includes a period of time, a response to content presented, and any input received from

the user. See Col.2: 65-Col.3: 2.

22.   [Claim 41]: Regarding Claim 41, Parry discloses component modules (i.e.,

templates), wherein the component modules are reusable for designing other dynamic

content, thereby causing a process of designing dynamic content for presentation to be

efficient. See Col.6: 28-46. Parry discloses dynamic activities (e.g., grammar

exercises, task-oriented learning activities, vocabulary exercises), wherein the dynamic

activities are reusable for designing other dynamic educational content, thereby causing

a process of designing dynamic educational content for presentation to be efficient.

23.   [Claim 42]: Regarding Claim 42, Parry discloses wherein the step of designing

dynamic educational content includes a step for allowing at least a portion of the content

to be selectively supported by any number of a number of output layout formats (e.g.,

Multiple Choice Completion, Fill-in-the-Blank Completion). See Col.11: 49-53, 57-62.

24.   [Claim 47]: Regarding Claim 47, Parry discloses a step for automatically

generating a report relating to the user's performance. See Col.10: 58-63.

25.   [Claims 53,67]: Regarding Claims 53 and 67, Parry discloses a second computer

device (i.e., visual display device) having a graphical user interface configured to

graphically design a flow of the structural components for presentation to the user; and

a communications mechanism coupling the second computer device to the computer

device and configured to enable an exchange of information between the second

computer device and the computer device. See Col.5: 61-Col.6: 17.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8, 10, 12-16, 18, 20, 37, 48, 54, and 55 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Parry in view of Rukavina et al. (US 2002/0188583).

1.   [Claims 8,10, 12-15,18,37,48]: Regarding Claims 8,10, 12-15, 18, 37, and 48,

Parry does not disclose expressly wherein the design technique comprises at least one

of an objected oriented technique (i.e., object-oriented approach) that graphically relates

components of the educational content; and a drag-and-drop technique that graphically

relates components of the educational content; wherein the step for designing dynamic

educational content for presentation to the user further comprises selectively modifying

properties of the available components (i.e., modifying the individual objects); wherein

the step for designing dynamic educational content for presentation to the user

comprises graphically developing a flow (i.e., defining the relationships therebetween) of activities for selective presentation to the user to teach a particular educational lesson; wherein the flow of activities depicts an order for which concepts are to be learned within the lesson; wherein the flow of activities comprises at least one of a linear sequence of activities and an adaptive sequence of activities (i.e., customized for the student); wherein the step for developing a flow of activities for selective presentation to the user further comprises selectively organizing the activity icons to develop the flow of activities (i.e., icon-driven selection means); wherein the relational order is an hierarchical order (i.e., hierarchically crafted); designing a collaborative activity among users; and dynamically linking roles (e.g., online mentors, peers) of the users in the collaborative activity; wherein the step for implementing the presentation includes selectively prioritizing aspects of the presentation, wherein the aspects are lessons (i.e., The results of the pretest are then stored within the student's profile. In this way, the student can avoid experiencing lessons that concern subject matter with which the student is already familiar). However, Rukavina teaches such in the Abstract, p.3, [0033]-[0034], p.2, [0016], p.4, [0040], p.5, [0048]. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitations into the method and system of Parry, in light of the teaching of Rukavina, in order to permit easily-developed course content to be quickly produced in customized form for a plurality of users, provide an interactive course, and avoid lessons in which a student is already familiar.

2.   [Claim 16]: Regarding Claim 16, Parry discloses wherein the flow of activities

includes one or more stage markers (e.g., new stage, test stage) that delineate

meaningful stages of learning.   See Col.20: 65-Col.20: 5.

3.   [Claim 20]: Regarding Claim 20, Parry discloses wherein the flow of activities

includes a systematic spaced review of the educational lesson. See Col.2: 65-Col.3: 2.

4.   [Claims 54-55]: Regarding Claims 54 and 55, Parry does not discloses expressly

wherein the communications mechanism is a network and wherein the network is the

Internet. However, Rukavina teaches such on p.1, [0007]. Therefore, at the time of the

invention, it would have been obvious to one of ordinary skill in the art to incorporate the

aforementioned limitations into the method and system of Parry, in light of the teaching

of Rukavina, in order to distribute content from a server to a plurality of individual

network computers.

Claims 24, 26, 60, and 70 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Parry in view of Kershaw et al. (US 5,565,316).

[Claims 24,26,60,70]: Regarding Claims 24, 26, 60, and 70, Parry does not disclose

expressly executing automated tests on components to ensure that the components

function as designed and diagnosing any errors in the components; wherein the step for

selectively implementing the presentation of the educational content to the user

comprises detecting any potential problems with the implementation for repair; ensuring

genuine fidelity of the presentation of the educational content and measuring and

encouraging fidelity to system-determined guidelines for learners, tutors, and

administrators who interact with and contribute to a learning experience. However,

Kershaw teaches such (i.e., quality assurance tests) in Col.28: 4-18. Therefore, at the

time of the invention, it would have been obvious to one of ordinary skill in the art to

incorporate the aforementioned limitation into the method and system of Parry, in light

of the teaching of Kershaw, in order to assure the quality of the test components.

**Claims 30 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Parry in view of Jenkins et al. (US 6,293,801).**

[Claims 30, 49]: Regarding Claims 30 and 49, Parry does not disclose expressly

wherein the step for selectively implementing the presentation of the educational

content to the user comprises automatically providing positive feedback to the user as

aspects of the educational content are learned and a step for selectively displaying the

user's progress. However, Jenkins teaches such in Col.3: 14-28. Therefore, at the time

of the invention, it would have been obvious to one of ordinary skill in the art to

incorporate the aforementioned limitations into the method and system of Parry, in light

of the teaching of Jenkins, in order to indicate a correct response.

**Claims 35-36 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Parry in view of Siefert (US 5,810,605).**

[Claims 35-36,44-46]: Regarding Claims 35-36 and 44-46, Parry does not disclose

expressly wherein the step for evaluating the learning of the educational content by the

user includes automatically conducting experiments on the user to identify an optimal

instructional setting (i.e., presentation) for the user, wherein the step for evaluating the learning of the educational content includes automatically analyzing experimental data obtained; a step for grouping experimental data to determine information relating to one or more groups to which the user belongs; wherein the step for implemting the presentation includes implementing the at least a portion of the presentation based on the user's similarity to other users for which optimum settings have been established; wherein the step for implementing the presentation includes a step for conducting experiments using an experimental unit that is a particular learner type and a particular learner. However, Siefert teaches such in Col.3: 31-Col.4: 7. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system of Parry, in light of the teaching of Siefert, in order to facilitate mastery of a lesson.

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parry in view of Official Notice.

[Claim 43]: Regarding Claim 43, Parry does not disclose expressly a step for selectively and instantly changing a look and feel of the presentation. However, Examiner takes official notice that such is old and well known in the art. Take Microsoft's POWERPOINT application, for example. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system of Parry, in order to customize the presentation to the user.

Allowable Subject Matter

Claims 17, 19, 22, 32, 57, 68 and 69 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims.

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Barrett et al. (US 2002/0098468)

  -apative eLearning Process

- Wallace et al. (US 2002/0160347)

  -allows the system to be specifically tailored to the user

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chanda L. Harris whose telephone number is 571-272-

4448. The examiner can normally be reached on M-F 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert Olszewski can be reached on 571-272-6788. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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